

### **REMARKS**

Claims 1 to 24 are currently pending in the present application, of which claims 15-18 were previously withdrawn. As discussed below, by the present Response the independent claims have been amended without prejudice to include limitations from the dependent claims. Specifically, the independent claims are all amended to recite that the gap junction channel is “composed of connexin 43” and that “the oligonucleotide is 12-24 nucleotides in length.” In addition, the independent claims 1, 20, 22, and 23 have been amended by deleting reference to delivery of plasmids or peptides to the target cell. Claims 2, 4, 5, 8, and 10 have been amended in order to conform with independent claim 1 as amended. Claim 13 has been amended fix a typographical error replacing “call” with “cell.” Claims 6, 14-19, and 24 are hereby cancelled without prejudice. These amendments introduce no new matter. Applicants reserve the right to pursue any unclaimed subject matter in a continuing application.

### **Interview**

A telephone interview took place on October 5, 2009 between Examiner Gibbs and Applicants’ representatives Michael Glynn and Lawrence Frank. Applicants extend their appreciation for the Examiner’s taking time to talk about the pending application. Discussed during the interview were amendments to the independent claims to recite that “the oligonucleotide is 12-24 nucleotides in length” and that the gap junction channel is “composed of connexin 43,” as previously recited in claims 8 and 14, respectively. The Examiner indicated that these amendments would overcome the current enablement rejection under § 112, first paragraph, but that the amendments should not introduce material into the claims that would require additional search or consideration.

### **Rejection Under 35 U.S.C. § 112, first paragraph**

In the Office Action dated July 6, 2009, the previous rejections under 35 U.S.C. §§ 102(b), 103(a), and 112 were withdrawn in view of the Applicants’ previous amendments. However, the Office issued a new § 112, first paragraph rejection (*i.e.*, a scope enablement rejection). In support of the rejection the Examiner states:

The specification as filed does not provide sufficient guidance or appropriate examples that would enable a skilled artisan to use the claimed methods for delivering, by traversing a gap junction channel, any/all sizes of

oligonucleotides other than oligonucleotides that are 12-24 nucleotides in length.

Office Action dated July 6, 2009 at 9. Regarding gap junctions composed of connexins other than connexin 43, the examiner states:

although the specification contemplates gap junctions composed of any connexin protein, such a disclosure would not be considered enabling since the state of the art of using connexin 26 or connexin 32, for example, to deliver oligonucleotides by gap junction channel traversal is highly unpredictable.

*Id.*

Although the Applicants disagree with the Examiner's position, in order to expedite prosecution, the Applicants in the present response have amended the claims to recite methods that the Examiner appears to have acknowledged are enabled. Specifically, independent claim 1 has been amended herein to include limitations derived from dependent claim 8 (*i.e.*, "wherein the oligonucleotide is 12-24 nucleotides in length") and from dependent claim 14 (*i.e.*, that the gap junction channel is "composed of connexin 43"). Similarly, the other independent claims 20 to 24 have been amended to include these limitations as well. The Examiner appears to have acknowledged that the methods recited by such amended claims are enabled (*see, e.g.*, Office Action dated July 6, 2009 at 8-10). In addition, the claims have been amended such that elements reciting delivery of plasmids or peptides to the target cell have been deleted.

### **Conclusion**

Applicants believe that the present amendments address the Examiner's scope enablement rejection and that the present application is in condition for allowance. Thus, Applicants respectfully request that the Office pass this application to issue. If, in the opinion of the Examiner, a telephone conference would expedite prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

The Office is authorized to charge any additional fees that may be necessary for consideration of this paper, or to credit any overpayment, to Kenyon & Kenyon Deposit Account No. 11-0600.

Respectfully submitted,

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/Lawrence H. Frank/  
Lawrence H. Frank  
Reg. No. 51,700

KENYON & KENYON LLP  
One Broadway  
New York, NY 10004  
(212) 908-6388 (telephone)  
(212) 425-5288 (facsimile)

**CUSTOMER NO. 26646**